

Applicant: Hiroshi OGASAWARA, et al.

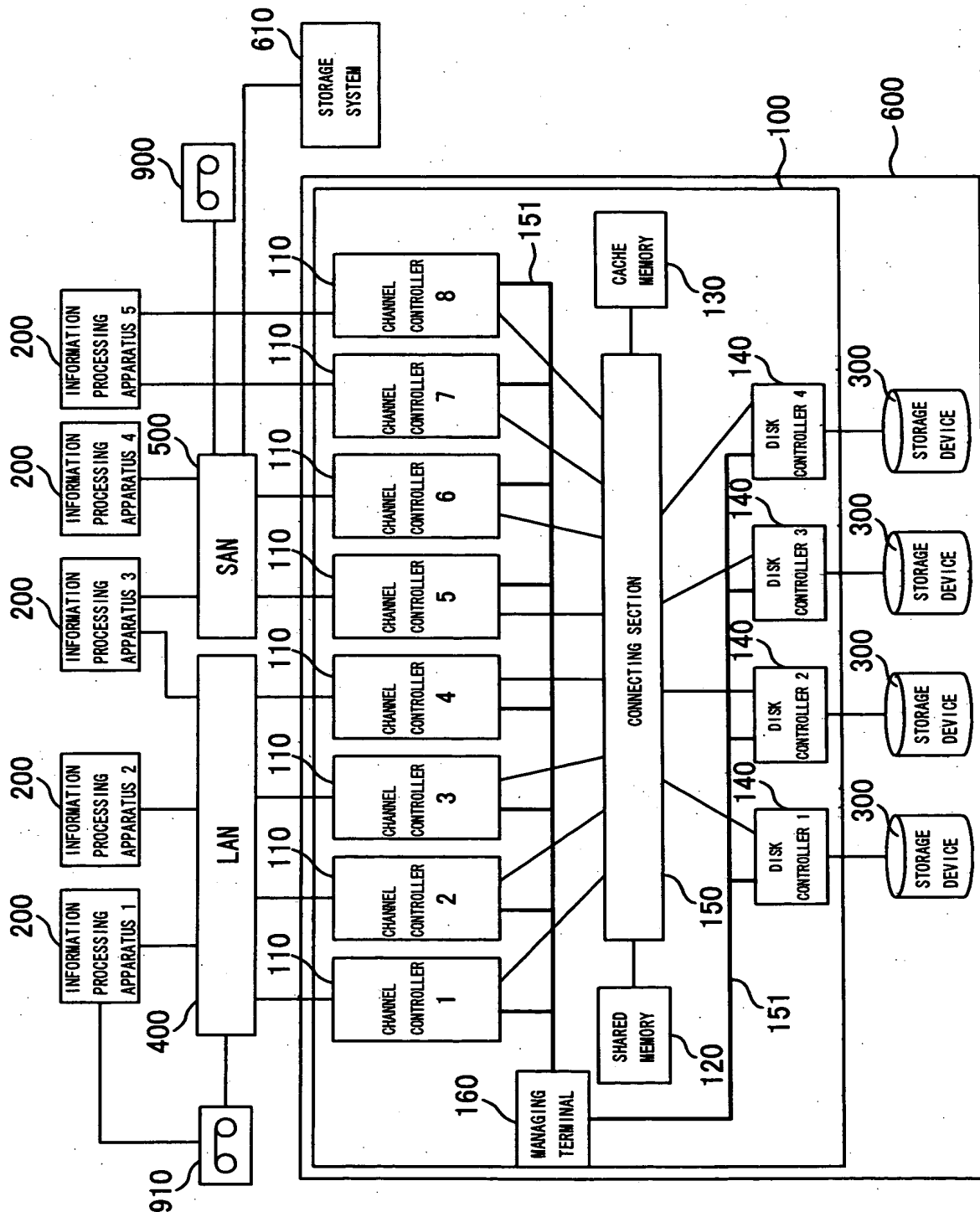
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FIG. 1

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FIG. 2

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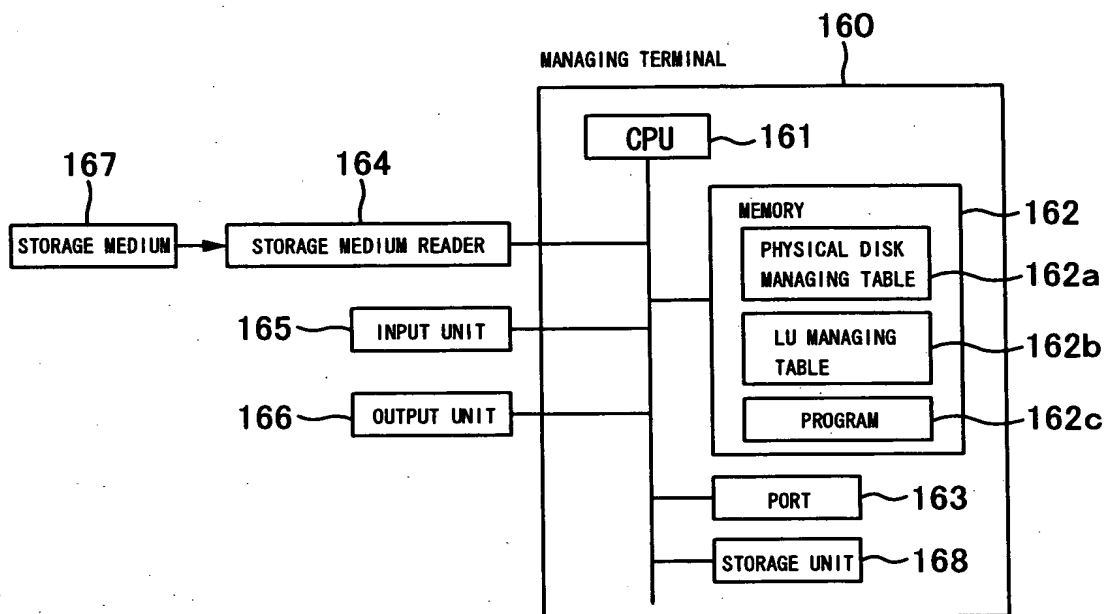


FIG. 3

162a

PHYSICAL DISK MANAGING TABLE

| DISK NUMBER | CAPACITY | RAID | USAGE STATE |
|-------------|----------|------|-------------|
| #001 | 100GB | 5 | USED |
| #002 | 100GB | 5 | USED |
| #003 | 100GB | 5 | USED |
| #004 | 100GB | 5 | USED |
| #005 | 100GB | 5 | USED |
| #006 | 50GB | — | UNUSED |
| ⋮ | ⋮ | ⋮ | ⋮ |

FIG. 4

162b

LU MANAGING TABLE

| LU NUMBER | PHYSICAL DISK | CAPACITY | RAID |
|-----------|------------------------------|----------|------|
| #1 | #001, #002, #003, #004, #005 | 100GB | 5 |
| #2 | #001, #002, #003, #004, #005 | 300GB | 5 |
| #3 | #006, #007, | 200GB | 1 |
| ⋮ | ⋮ | ⋮ | ⋮ |

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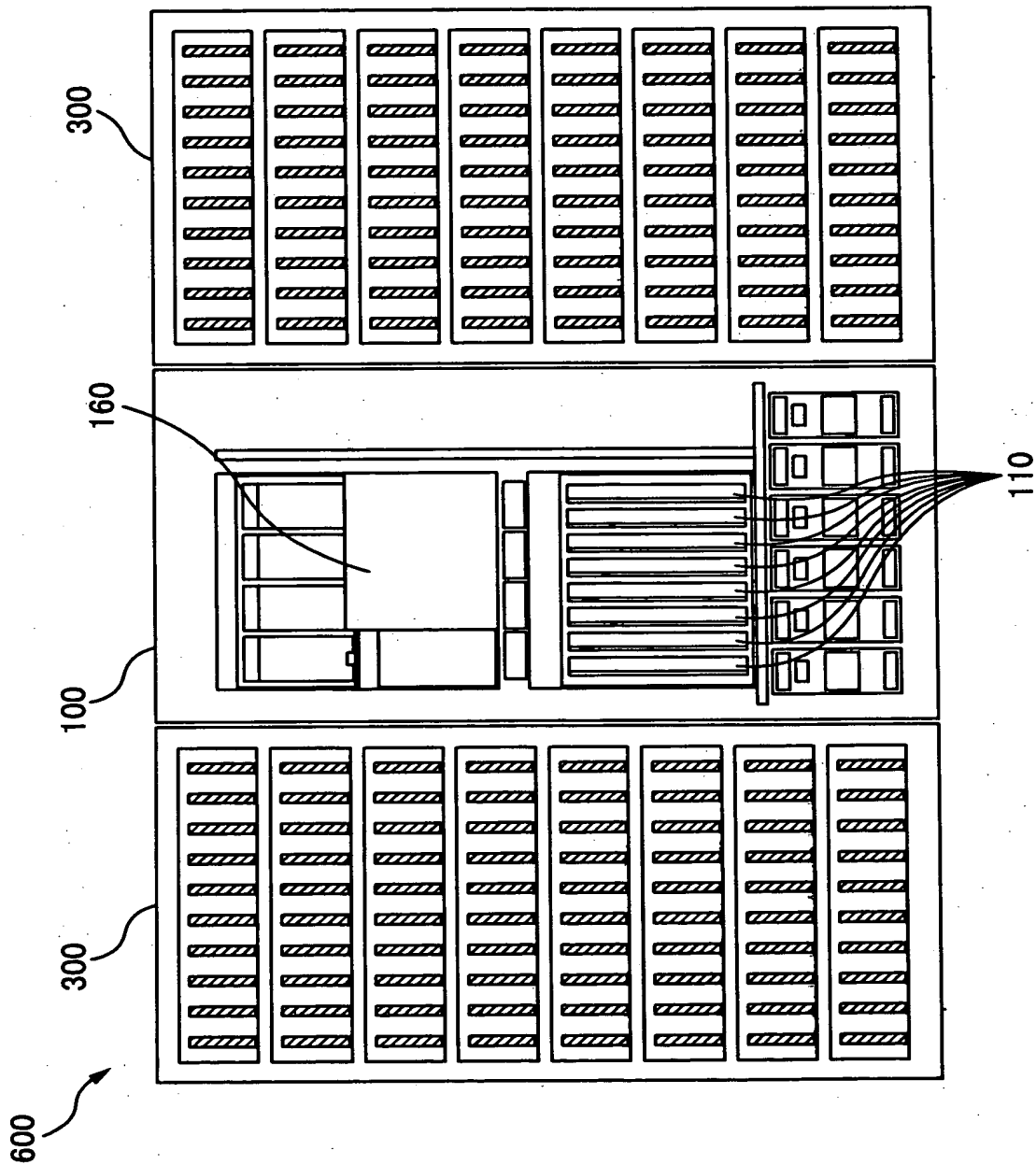
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FIG. 5

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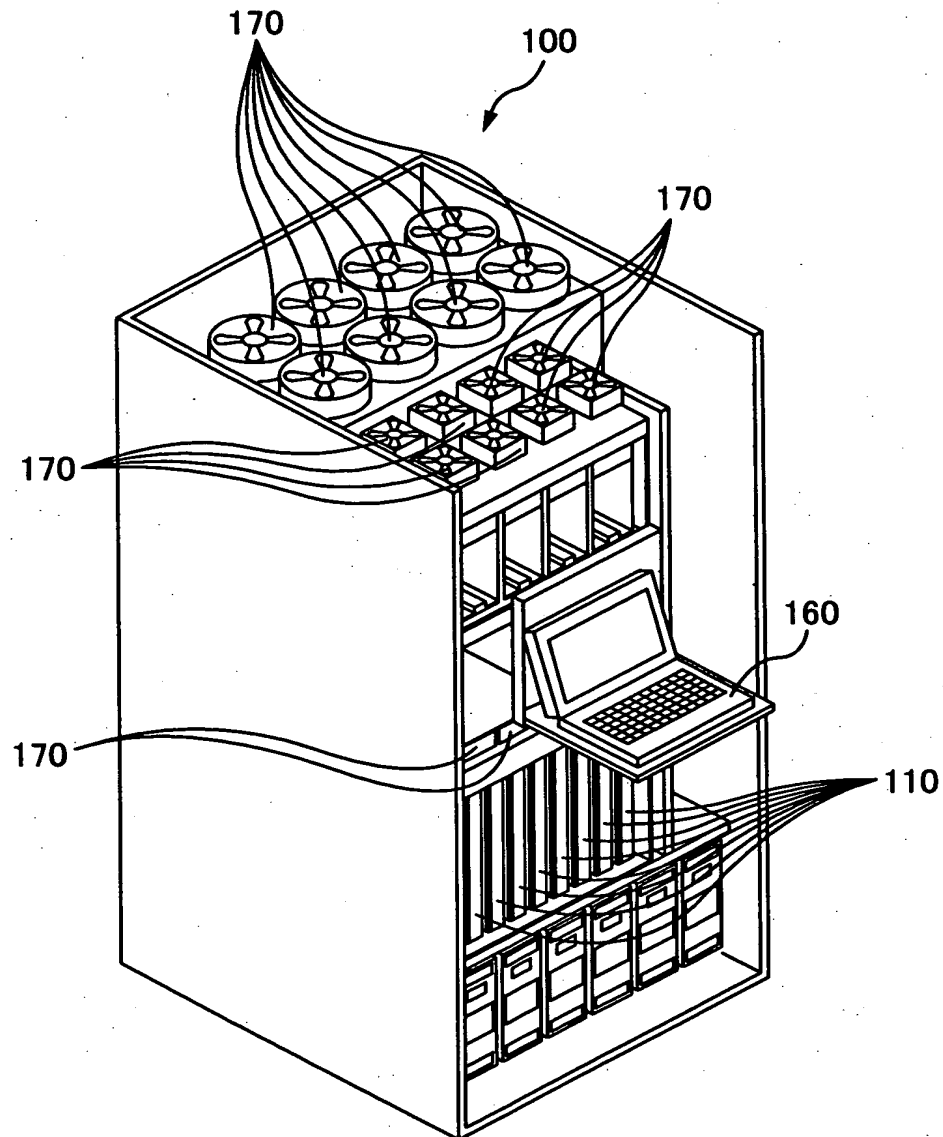
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FIG. 6

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FIG. 7

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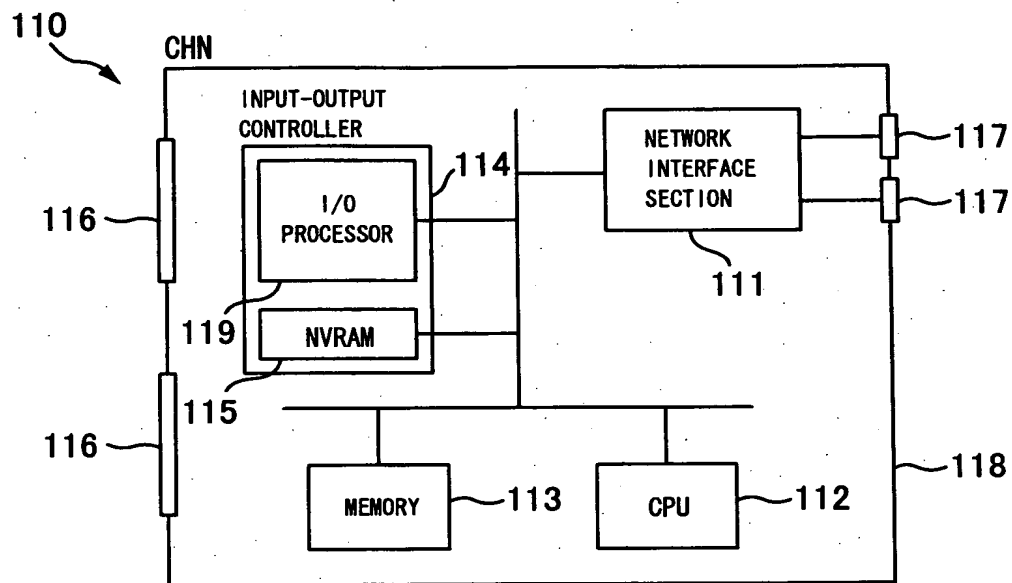
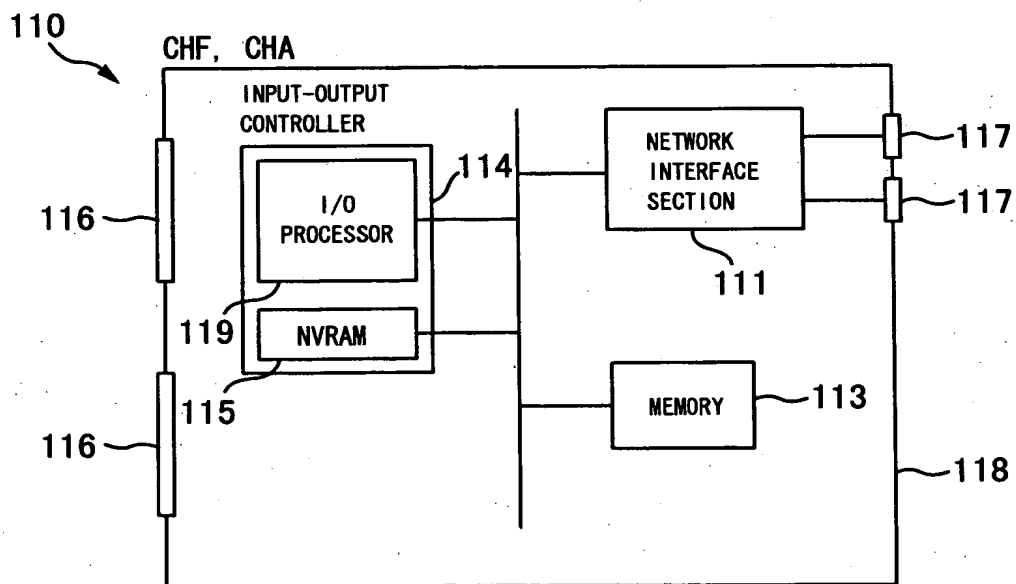


FIG. 8



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FIG. 9

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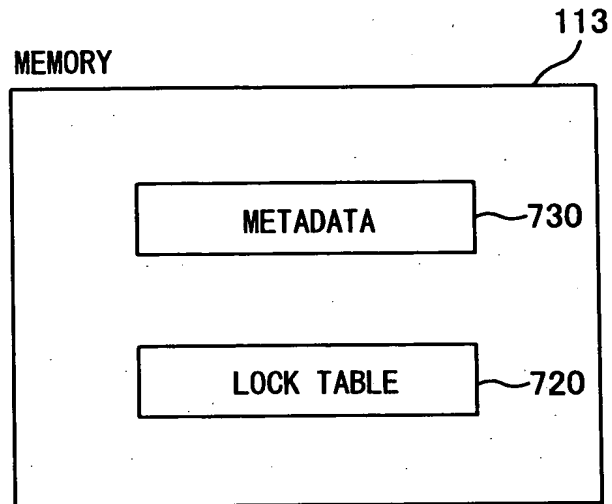
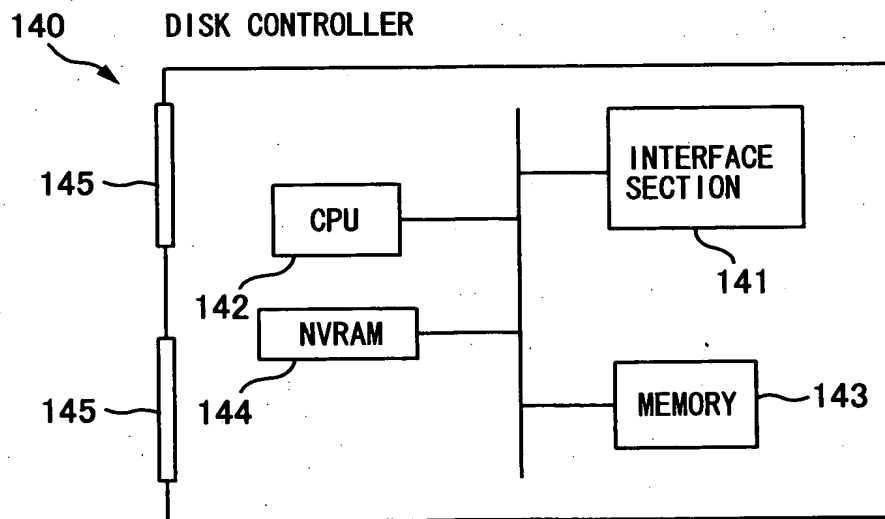


FIG. 10



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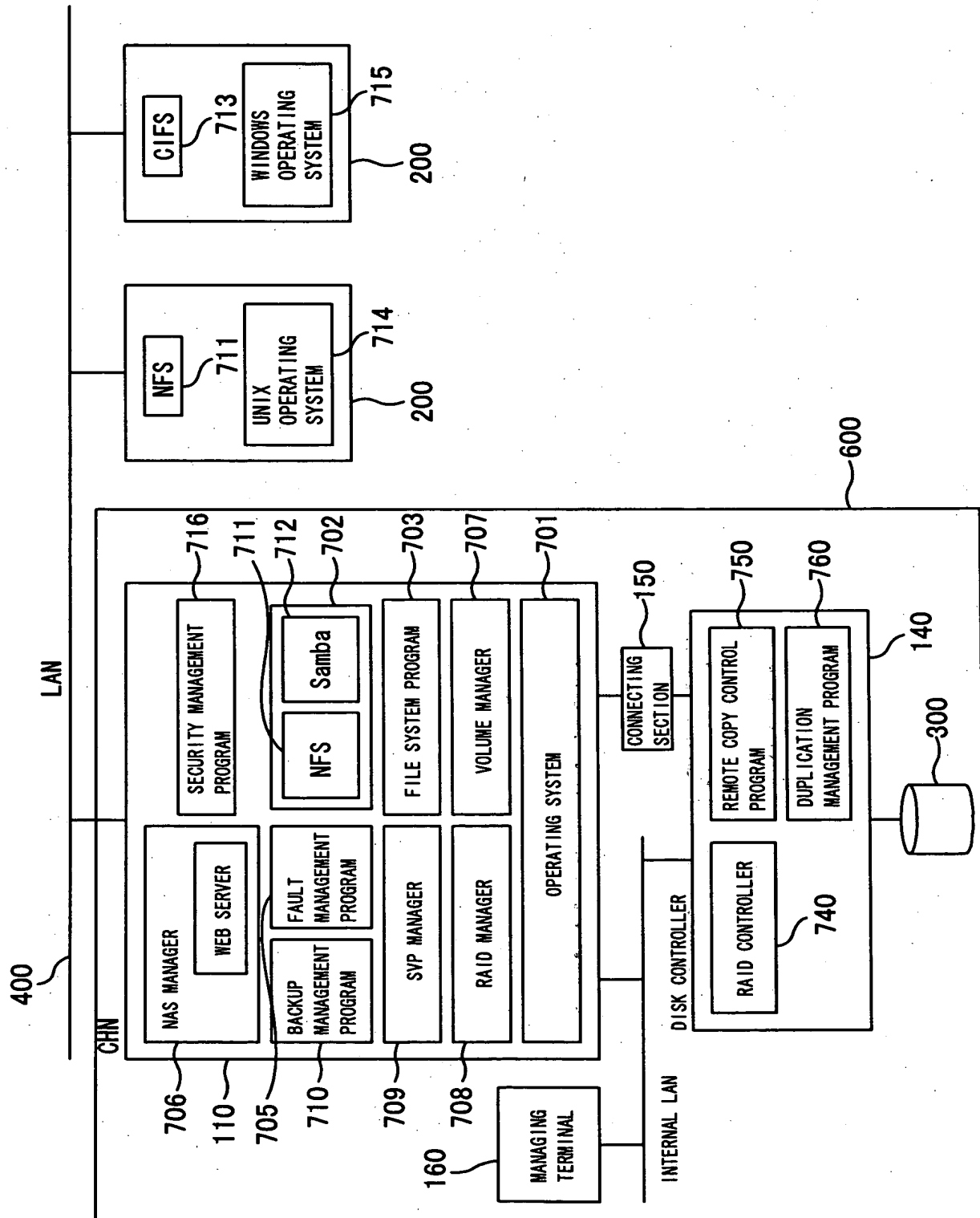
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FIG. 11

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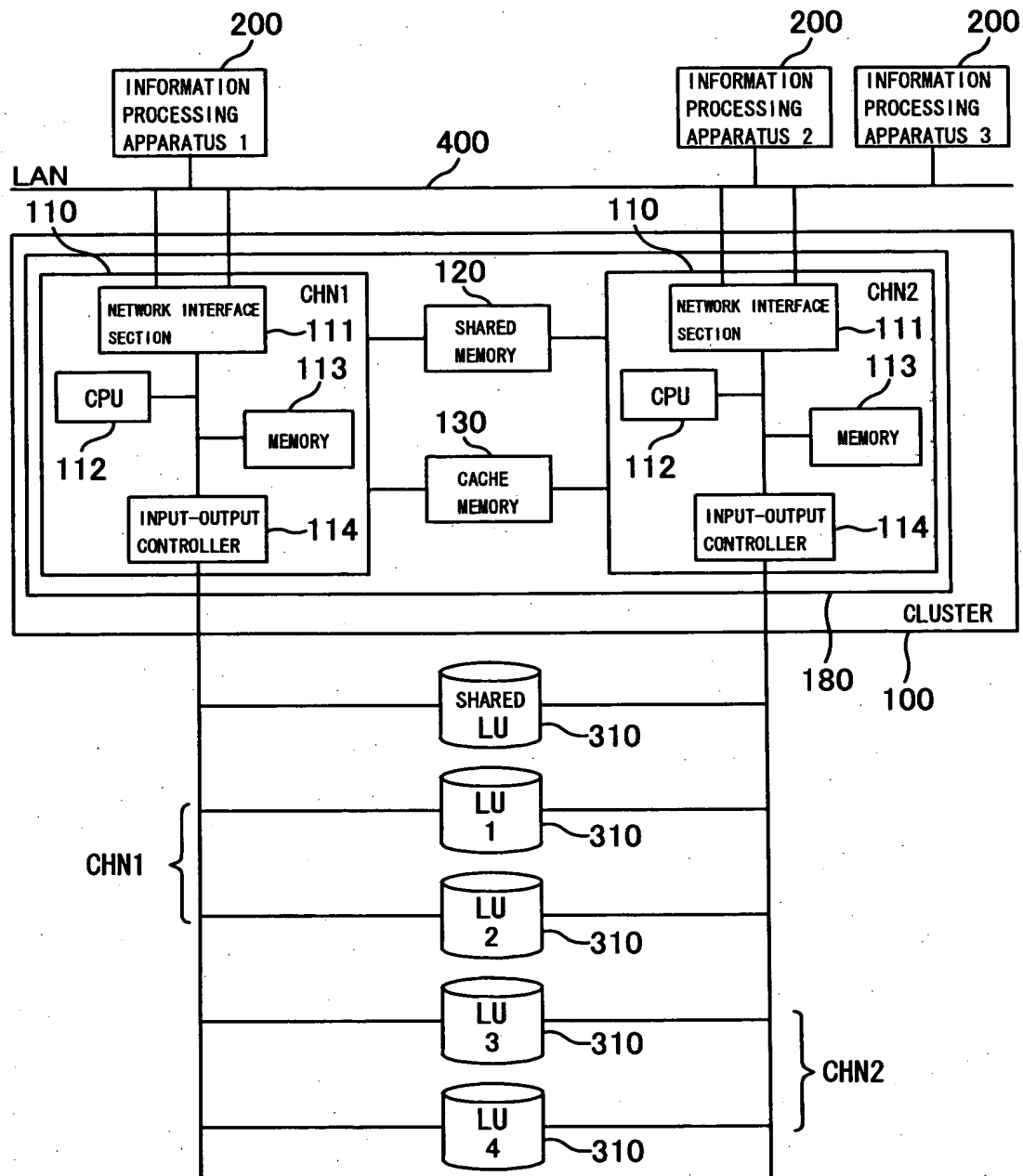
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FIG. 12

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FIG. 13

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METADATA

| FILE NAME | TOP ADDRESS | CAPACITY | OWNER | UPDATE TIME |
|-----------|-------------|----------|-------|-------------|
| A | 7BSA | 200MB | X | 0 : 00 |
| B | 05BF | 50MB | X | 7 : 57 |
| C | 1F30 | 100MB | Y | 9 : 15 |
| D | 470B | 100MB | Z | 15 : 20 |
| ⋮ | ⋮ | ⋮ | ⋮ | ⋮ |

FIG. 14

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FILE LOCK TABLE

| FILE NAME | LOCK/UNLOCK |
|-----------|-------------|
| A | LOCKED |
| B | — |
| C | — |
| D | LOCKED |
| ⋮ | ⋮ |

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LU LOCK TABLE

| LU | LOCK/UNLOCK |
|--------|-------------|
| SHARED | — |
| 1 | LOCKED |
| 2 | — |
| ⋮ | ⋮ |

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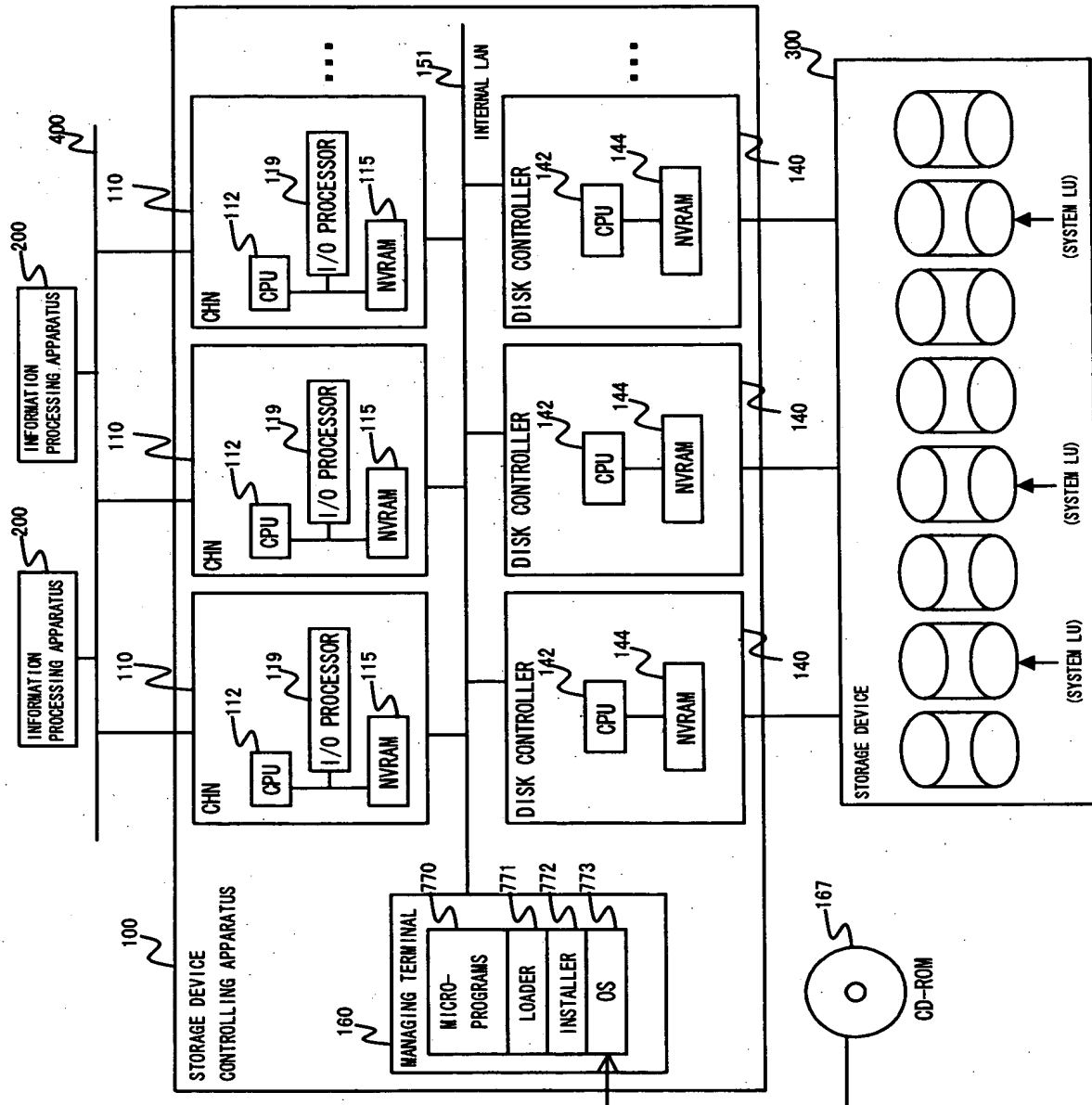
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FIG. 15

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FIG. 16

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| INITIAL INSTALLATION | | | | |
|----------------------|---------------------------|---------------|------------------|--------------|
| SLOT NO. | CHANNEL ADAPTOR SELECTION | SYSTEM LU NO. | BOOT DESIGNATION | |
| 1 | CHN | 112 | ▽ | NETWORK BOOT |
| 2 | CHN | 21 | ▽ | NETWORK BOOT |
| 3 | CHN | 158 | ▽ | NETWORK BOOT |
| 4 | CHN | 72 | ▽ | NETWORK BOOT |
| 5 | CHF | 5 | ▽ | DISK BOOT |
| 6 | CHF | 24 | ▽ | DISK BOOT |
| 7 | CHA | 60 | ▽ | DISK BOOT |
| 8 | CHA | 125 | ▽ | DISK BOOT |

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FIG. 17

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| CLUSTER SETUP | | | | | | | |
|---------------------|----------|----------|------------|----------------|----------------|-----------|--|
| POWER SUPPLY SYSTEM | SLOT NO. | BOARD ID | BOARD TYPE | TO-FAIL-OVER 1 | TO-FAIL-OVER 2 | SHARED LU | |
| A | 1 | a | CHN | 2 | 3 | 58 | |
| B | 2 | b | CHN | 3 | 4 | 58 | |
| A | 3 | c | CHN | 4 | 1 | 58 | |
| B | 4 | d | CHN | 1 | 2 | 58 | |
| A | 5 | e | CHF | 6 | — | 132 | |
| B | 6 | f | CHF | 5 | — | 132 | |
| A | 7 | g | CHA | 8 | — | 47 | |
| B | 8 | h | CHA | 7 | — | 47 | |

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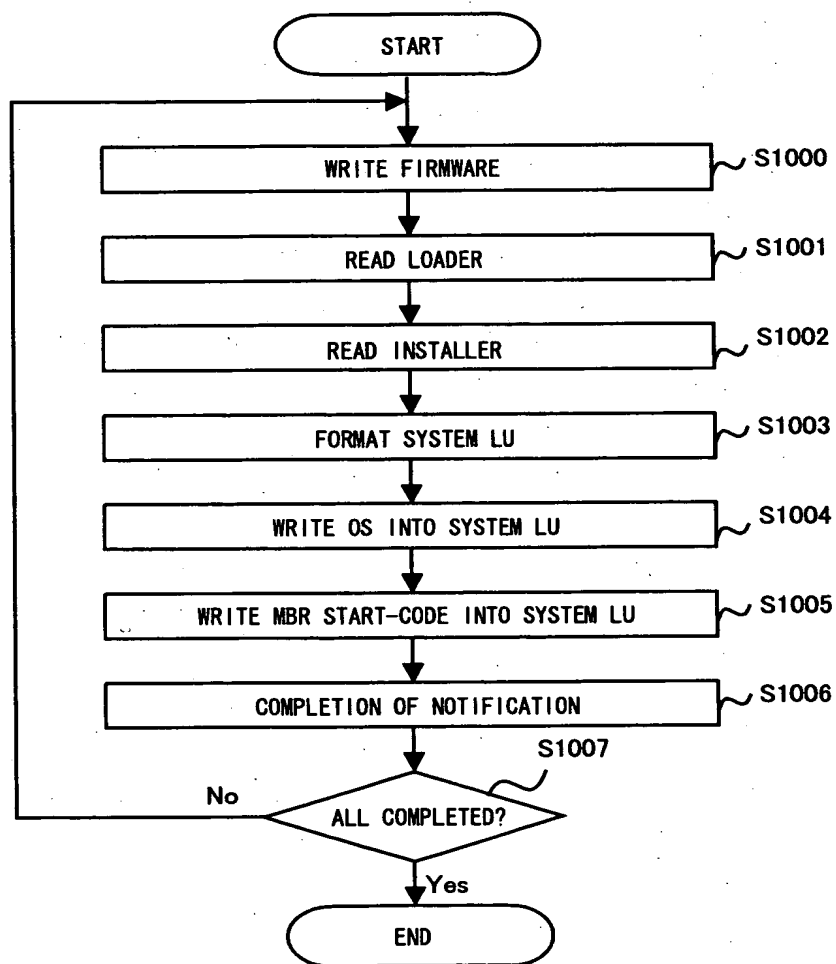
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FIG. 18

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FIG. 19

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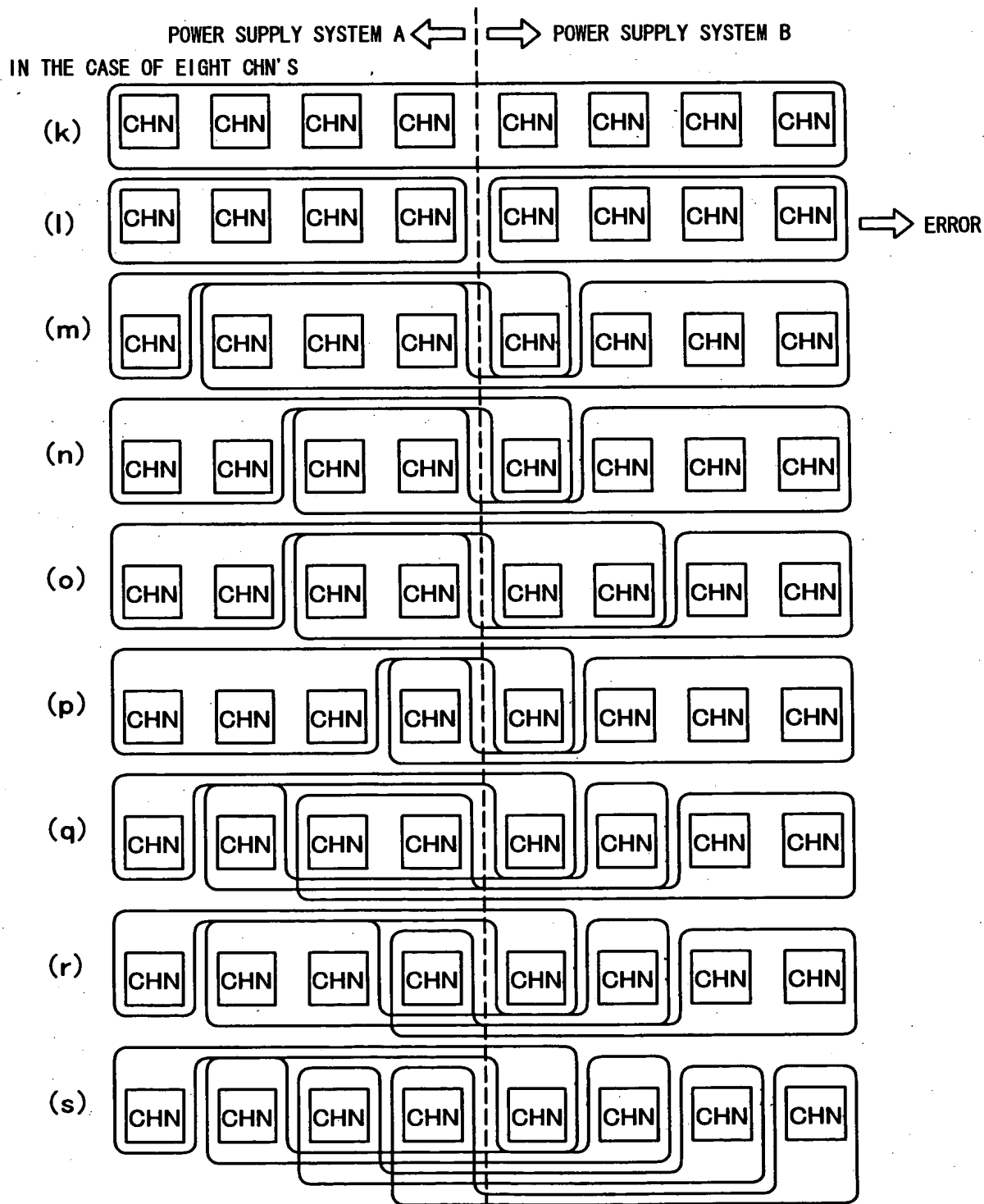


FIG. 20

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